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10/814,390	03/30/2004	Peter E. Hand	359999.35	5402

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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT

PAPER NUMBER

3653

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09/28/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/814,390

Applicant(s)

HAND ET AL.

Examiner

JEFFREY A. SHAPIRO

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2010.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-5, 9-11 and 18-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-5, 9-11 and 18-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Attachment Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/16/10 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. It is unclear in Claim 19 how the vending machine bill acceptor accepts notes only up to a first value limitation, as mentioned in line 5, while the validator has a processor which controls acceptance of banknotes having a denomination exceeding the first value limitation, as recited in lines 14-16. It appears that either there is structure or steps missing or the claim limitations require more clarity in their expression.

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5. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. It is unclear how or what is changing the characteristics used for directing the notes to said note hopper. It appears that either there is structure or steps missing or the claim limitations require more clarity in their expression.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-5, 9-11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al in view of Ramachandran, further in view of Partyka et al (US 5,941,363), further in view of Billington (US 6,390,269 B1), further in view of Morun (US 5,566,807), further in view of Deaville et al (US 5,791,449) and still further in view of Katou et al (US 2004/0182677 A1).

As described in Claim 18, Jones discloses an automated teller machine (ATM) as shown in figures 1b-d, that has a processor-based controller and coin receipt and return functions. Note that Jones' ATM vends bills and coins to customers. See Jones, figure 1a and col. 6, lines 22-46, which indicates that a customer's deposit may be returned in either coins, bills or both, and that controller (10) causes the dispensing unit (22) to

dispense funds to a user. Figure 1e, for example, illustrates dispenser (22), communications panel (26), image scanner (12), input receptacle (16), transport mechanism (18), and output receptacles (20a and b), all controlled by processor-based controller (10). Controller (10) also directs information from scanner (12), discriminator (14) to interface (24) which communicates further with remote accounting systems. Jones also discloses a front-end processor (6038) in figures 1u and 1v. See col. 11, lines 35-64. Jones at col. 16, line 56-col. 17, line 30 discloses scanning a bill for various image features and comparing them with stored information. See also Jones at col. 20, line 26-col. 22, line 15, noting EPROM (934), illustrated in figure 4a, and CPU 930. See also Jones at col. 22, lines 30-56 and col. 26, lines 30-56. Jones at col. 27 line 56-col. 28 line 67 and col. 29 line 33-col. 30, line 26 describes microprocessor (212) storing obtained optical image and magnetic data from bills and comparing them with stored patterns stored for example in read only memory (232). Jones also discloses an escrow holding area in col. 77, lines 51-54.

As described in Claims 9-11, Jones further discloses a display (2402) in the form of a touch screen with various currency denominations the machine control will allow to be processed displayed as keys (2406a-g). Note that said display is supported in a bezel assembly. Note that disposing the display either on or adjoining the runway surface is considered to be obvious variations of each other that one ordinarily skilled in the art would have found obvious to use in Jones apparatus. Jones discloses a display (2304) in a bezel with denomination keys (2306a-g) located on a lower area of the bezel that can be construed as a runway area in figures (49a and b) and discussed in col. 65,

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line 52-col. 66, line 23. See also figure 50a or 57b as well as col. 66, lines 23-45, col. 72, line 60-col. 73, line 37, and col. 80, lines 49-59.

Jones does not expressly disclose, but Ramachandran discloses placing an ATM type device in a vending machine. See Ramachandran col. 2, line 45-col. 3, line 32 and col. 8, lines 23-42.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have embodied Jones' ATM in a combination ATM/vending machine for the purpose of dispensing snacks and goods as well as handles bank transactions.

The suggestion/motivation to do so would have been increase the range of services available to customers, thereby acting as a further draw to the vending machine, and therefore increasing profits, as suggested by Ramachandran's teaching and disclosure. See Ramachandran, col. 2, line 60-col. 3, line 10. Also, one ordinarily skilled in the art would have recognized the benefit of combining an ATM and vending machine because customers obtaining money at the ATM may be more willing to make impulsive purchases, thereby resulting in increased sales of vended goods as compared to a typical free-standing vending machine.

Further, regarding the use of a vending machine controller (VMC), Applicant's "Background to the Invention" section at paragraph 5, line 1-3 mentions that "vending machines are in wide use..." Paragraph 6 of the same section mentions that MDB/ICP communication protocol allows a bill validator to communicate with a vending machine controller (VMC). Since Ramachandran provides the teaching to retrofit an ATM bill validator in a vending machine, it would therefore have been obvious for one ordinarily

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skilled in the art to have used such an MDB/ICP protocol to allow the various controllers and components of the vending system, including the bill and coin validators to communicate with the main controller.

Jones does not expressly disclose, but Partyka discloses that the note validator (14) controls a coin changer (12).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have controlled Jones's coin changer by input from Jones' note validator, and the note validator in turn by the VMC.

The suggestion/motivation would have been to "provide payout of coin change in response to the receiving of a proper bill." See Partyka, col. 2, lines 45-52.

Regarding the newly added claim language concerning "payment in a vending transaction", Jones does not expressly disclose, but Morun discloses that the note validator (340) and bill escrow and payout unit (115) and coin changer are operated to provide change from inserted bills or coins after a vending transaction has been processed. See figure 5, col. 1, lines 5-10, col. 3, lines 45-57, col. 4, lines 14-53, col. 4, lines 63-col. 5, lines 1-12, col. 5, lines 1-17 and col. 6, lines 17-35.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have controlled Jones' coin and bill changers by input from Jones' note validator, and the note validator in turn by the VMC, as taught by Morun, for the predictable purpose of providing change in coins or bills, as required by the particular transaction.

Jones does not expressly disclose, but Deaville discloses placing a coin acceptor/changer (50) and a bill acceptor/dispenser (60) disposed in the opening formerly receiving the bill validation device. Note that Deaville's coin acceptor and bill acceptor fits into the industry standard bill validator opening in the front panel of the vending machine. See Deaville, abstract, col. 1, line 50-col. 2, line 9 and figures 3a and 4a.

Regarding Claim 18, Jones does not expressly disclose, but Billington discloses a program calculating change to be dispensed by a vending machine and outputting a signal indicative of the change to be dispensed with the signal rerouted through a unit controller, i.e., interface of the note-acceptor-dispenser. Note that Billington discloses the MDB standard at col. 1, lines 18-29. Figure 1 of Billington illustrates the changer (110) with bill validator (100) and coin dispenser (105) connected thereto. Figure 2 illustrates the unit controller (400) with interface adapter (430). See also col. 1, lines 17-29, col. 2, lines 53-67, col. 3, lines 45-57, col. 5, line 15-col. 6, line 35, col. 8, lines 5-25 and ones 62-67, col. 9, lines 1-9.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added the interface of Billington with change calculation program to Jones' device for the purpose of controlling several different currency dispensing devices so as to provide change in a vending transaction system.

Regarding Claims 2-4, Jones discloses that counterfeit detector (210) is controlled directly by microprocessor (212), which is considered analogous to



Applicants' "unit controller", and has the "capability to maintain a running total of genuine documents" at col. 29, lines 15-20. Note Jones' ram (226) and rom (232) memory in figure 12. See also col. 30, lines 19-26 of Jones, which discusses programming microprocessor (212).

Regarding Claim 5, note again that Jones discloses displaying information on display (2402), for example. It would have been obvious to display such information as the number of notes dispensed and the number of coins dispensed, or any accounting or other information that one ordinarily skilled in the art would have found necessary to manage and operate Jones' currency handlers.

Jones does not expressly disclose, but Katou discloses a vending machine in the form of automated teller machine (101), having a note acceptor-dispenser (1), a bill discriminator (30), a note box (60), a note hopper (40) that temporarily stores said notes, and a transportation unit (501, 502, 503, 504) in a combination such that said notes are transported to either a note box, a temporary storage or escrow box, or through the bill discriminator. See figures 6-13, 23-26, 30a-30c and 31. Also note the direction arrows of figures 6-13, 23-26, 30a-30c and 31.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added the transport mechanism disclosed and taught by Katou illustrated in Katou's figure 6, for example, to the transport mechanism of Jones such that said notes are transported to either a note box, a temporary storage or escrow box, or through the bill discriminator as well as from input to output receptacles.

The suggestion/motivation for adding Katou's transport mechanism to Jones' would have been to prevent jamming of notes. See Katou, paragraphs 10 and 18. Further, it would have been obvious to use closed note boxes or cassettes or magazines to receive notes rather than open receptacles as Jones discloses so as to promote automation of the note handling process.

9. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al in view of Ramachandran, further in view of Partyka, further in view of Billington (US 6,390,269 B1), further in view of Morun, further in view of Deaville et al (US 5,791,449), further in view of Katou et al (US 2004/0182677 A1) and still further in view of Pope (US 2002/0195309).

Jones, Ramachandran, Partyka, Morun, Deaville and Katou disclose the system described above.

Regarding Claims 19 and 20, Jones does not expressly disclose, but Pope discloses the particulars of retrofitting a validator that accepts currency at a second value which is higher than the value of a maximum first denomination value accepted/handled by the vending machine controller (VMC). See Pope at paragraphs 1-10.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added the transport mechanism disclosed and taught by Katou illustrated in Katou's figure 6, for example, to the transport mechanism of Jones such that said notes are transported to either a note box, a temporary storage or escrow box, or through the bill discriminator as well as from input to output receptacles.

The suggestion/motivation for adding Katou's transport mechanism to Jones' would have been to prevent jamming of notes. See Katou, paragraphs 10 and 18. Further, it would have been obvious to use closed note boxes or cassettes or magazines to receive notes rather than open receptacles as Jones discloses so as to promote automation of the note handling process.

Regarding Claims 19 and 20, which require the "vending machine protocol program to accept notes only up to a first value...and a processor controlling the acceptance and recognition of notes up to a second value exceeding said first value", note that it would have been obvious to upgrade a vending machine, which accepts coins or bills up to a one value, and increase the capability of the vending machine to accept bills of a higher value by installing a bill validator having a processor controller that allows bills of a second, higher maximum value, since prices of items can be expected to rise over time, thus requiring larger denominations to be transacted during a vend.

10. Claims 2-4, 18-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington et al (US 6,615,970 B1) in view of Gerlier (US 5,076,441).

Regarding Claims 18-21 and 28, Billington discloses a vending machine, as mentioned at col. 8, lines 29-39 and illustrated at figure 4, with items (10) dispensed to a delivery area. Note that in an apparatus claim, according to MPEP 2115, the item being worked upon by the vending apparatus, in this case,

the items (10) which include drinks, candy, snacks or tobacco products, does not limit the apparatus claim.

Regarding Claims 2, 4, 18- 21, 28 and 31-34, Billington further discloses a multi-drop bus (MDB) coupling (p2), as mentioned at col. 1, lines 21-22 and col. 2, lines 53-62 for coupling the note acceptor dispenser and controller (100) and coin changer and controller (105) through vending machine controller (130) via unit controller (110, 400), as illustrated at figures 1, 2 and 5. Note that Billington's controller directs the dispensing of change, as mentioned at col. 9, lines 20-29.

Regarding Claim 21 and 31-34, Billington does not expressly disclose, but Gerlier discloses a note hopper (9 and 10) configured to store notes in a dispensable fashion, and a note box (42) configured to store notes in a nondispensable fashion, as mentioned at Gerlier col. 3, lines 37-54, col. 7, lines 12-38 and col. 9, lines 1-16, and illustrated at figures 1 and 3. Gerlier further discloses an opening to receive notes (3) inserted as payment in a vending transaction and an opening (4) for delivering the banknotes as change, a validator (8) configured to scan and validate received notes of plural denominations, a transportation unit (19-28) configured to move a note through the system, a unit controller (12) configured to direct the notes through the system to any of the openings, validator, note box or note hopper. Note that the note box (42) of Gerlier is construed to hold notes in a non-dispensable fashion as

either unidentified notes or as overflow storage when the note hoppers (9 and 10) become full.

Regarding Claim 3, note that it is obvious for one of ordinary skill in the art to change the characteristics used for directing notes to said note hopper by programming controller (12) per Gerlier's teachings at col. 7, lines 12-39 and col. 9, lines 1-16.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added the bill handling unit as taught by Gerlier in Billington's apparatus as mentioned at Billington, col. 9, lines 26-29, for the purpose of handling the payout of banknotes in a vending machine.

Regarding Claim 28, Billington discloses bill changer and controller (100), coin changer and controller (105), with the bill controller and coin change controller separately controlled through the vending machine controller (130) via unit controller (400).

Regarding Claim 22, Billington discloses a controller (400) controls the dispensing of the change "as near as possible below the value of the overpayment, as mentioned at col. 7, lines 11-14.

Regarding Claim 23, note again Billington's controller (130) and (110) and Gerlier's controller (12) which controls the transportation unit to transport bills through the system.

Regarding Claims 24-26, note again, Gerlier, col. 7, lines 12-38.

Regarding Claim 27, note that Billington discloses a cabinet (1) as illustrated at figure 4, that encloses the vending machine controller, the coin acceptor, the MDB coupling, and the vending machine controller is configured to calculate an amount of change to be dispensed in the vending transaction and to transmit a signal indicating the amount of change to be dispensed to one or both of the note acceptor/dispenser and the coin acceptor/dispenser.

Regarding Claim 29 and 30, note again, Gerlier's controller (12) which controls the amount of change dispensed as notes at col. 7, lines 12-38 and col. 9, lines 1-16.

11. Claims 21-27 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington et al (US 6,615,970 B1) in view of Gerlier (US 5,076,441) and further in view of Katou et al (US 2004/0182677 A1).

Regarding Claim 21, Billington discloses a vending machine, as mentioned at col. 8, lines 29-39 and illustrated at figure 4, with items (10) dispensed to a delivery area. Note that in an apparatus claim, according to MPEP 2115, the item being worked upon by the vending apparatus, in this case, the items (10) which include drinks, candy, snacks or tobacco products, does not limit the apparatus claim.

Regarding Claim 21 and 31-34, Billington further discloses a multi-drop bus (MDB) coupling (p2), as mentioned at col. 1, lines 21-22 and col. 2, lines 53-62 for coupling the note acceptor dispenser (100) through coin changer (110) to a vending machine controller (130) and a bill stacker/dispenser (105), as illustrated

at figures 1 and 5. Note that Billington's controller directs the dispensing of change, as mentioned at col. 9, lines 20-29.

Regarding Claim 21, Billington does not expressly disclose, but Gerlier discloses a note hopper (9 and 10) configured to store notes in a dispensable fashion, and a note box (42) configured to store notes in a nondispensable fashion, as mentioned at Gerlier col. 3, lines 37-54, col. 7, lines 12-38 and col. 9, lines 1-16, and illustrated at figures 1 and 3. Gerlier further discloses an opening to receive notes (3) inserted as payment in a vending transaction and an opening (4) for delivering the banknotes as change, a validator (8) configured to scan and validate received notes of plural denominations, a transportation unit (19-28) configured to move a note through the system, a unit controller (12) configured to direct the notes through the system to any of the openings, validator, note box or note hopper. Note also that the terms "nondispensible" or "dispensible" are considered to be functional or intended use limitations that do not limit the claims. Even if these two terms do limit the claims, Gerlier's note box (42) can be construed to be "capable" of not dispensing any notes if the notes are only drawn from the note hoppers (9 and 10).

Regarding Claim 21 and 31-34, Billington does not expressly disclose, but Katou discloses a single combined deposit/withdrawal opening (20), a note box (80, 81) that stores notes in a dispensable fashion, a note hopper (60) that stores said notes in a non dispensable fashion, and a transportation unit (501, 502, 503, 504) in a combination such that said notes are transported to either a note box, a temporary storage or escrow

box, or through the bill discriminator. See figures 6-13, 23-26, 30a-30c and 31. Also note the direction arrows of figures 6-13, 23-26, 30a-30c and 31.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added the transport mechanism disclosed and taught by Katou illustrated in Katou's figure 6, for example, to the bill handling mechanism of Billington such that said notes are transported to either a note box or a note hopper, or through the bill discriminator as well as from/to the combined deposit/withdrawal opening.

The suggestion/motivation for adding Katou's combined deposit/withdrawal opening to Billington's device would have been to add extra overflow capacity. See Katou, paragraphs 10 and 18.

Regarding Claim 22, Billington discloses a controller (400) controls the dispensing of the change "as near as possible below the value of the overpayment, as mentioned at col. 7, lines 11-14.

Regarding Claim 23, note again Billington's controller (130) and (110) and Gerlier's controller (12) which controls the transportation unit to transport bills through the system.

Regarding Claims 24-26, note again, Gerlier, col. 7, lines 12-38.

Regarding Claim 27, note that Billington discloses a cabinet (1) as illustrated at figure 4, that encloses the vending machine controller, the coin acceptor, the MDB coupling, and the vending machine controller is configured to calculate an amount of change to be dispensed in the vending transaction and to transmit a signal indicating



the amount of change to be dispensed to one or both of the note acceptor/dispenser and the coin acceptor/dispenser.

### ***Response to Arguments***

12. Applicant's arguments with respect to claims 2-5, 9-11 and 18-34 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ostendorf et al (US RE40,588 E) is cited as another example of vending machine with a bill validator and controller (324), a coin changer (322), a vending machine controller (310) and a unit controller (200), as illustrated at figure 2.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY A. SHAPIRO whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stefanos Karmis can be reached on (571)272-6744. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey A. Shapiro/  
Primary Examiner, Art Unit 3653

September 25, 2010